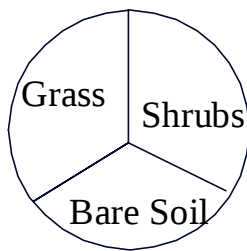




THE COVEY HEADQUARTERS

Volume 8 Issue 1 Spring 2009

This newsletter issue starts the eighth year of an effort aimed at cooperators and sportspeople in Missouri to provide information on restoring quail. This is a joint effort of the Missouri Department of Conservation, USDA-Natural Resources Conservation Service, and University of Missouri Extension. If you would like to be removed from this mailing list or have suggestions for future articles please contact jeff.powelson@mdc.mo.gov or 816-232-6555 x122 or write to the address shown.



The name of this newsletter is taken from an old concept.....that a quail covey operates from a headquarters (shrubby cover). If the rest of the covey's habitat needs are nearby, a covey should be present. We are encouraging landowners to manage their quail habitat according to this concept. Use **shrubs** as the cornerstone for your quail management efforts. Manage for a **diverse grass, broadleaf weed and legume mixture and provide bare ground** with row crops, food plots or light disking **right next to** the shrubby area.

It's shrub planting time!

Travis Dinsdale, Area Biologist, St. Joseph, MO

Spring is one of my favorite times of the year. Turkeys are gobbling, crappies are biting, and I can find an occasional morel mushroom. A yearly spring ritual my family and I have is planting shrubs for quail cover. We've planted shrubs for over 10 years on a farm in NW Missouri. Most of the early plantings didn't survive because of poorly prepared ground, or were damaged by rabbits and deer. I also didn't realize you can't just plant a shrub plot and walk away. It takes several years of maintenance to get them off to a good start. Planting several hundred shrubs for quail isn't like planting one tree in your yard that you may have to water once every few weeks.

Planting shrubs for quail is quite an undertaking. First you must figure out how many shrubs to plant. Quail require 0.1 acres of shrubby cover per 40 acres at a minimum. Research has shown that quail need this shrubby cover in clumps, or covey headquarters (CHQ's) at least 30x50 feet in size. A 30x50 foot CHQ planted on a 5x5 spacing yields 77 shrubs. Three of these CHQ's equal a tenth acre, so you need 231 shrubs per tenth acre. As I mentioned, a tenth acre of shrubs per 40 is the minimum. Missouri's quail habitat appraisal guide - <http://extension.missouri.edu/explore/miscpubs/mp0902.htm> recommends 10-25% of a quail's home range be made up of brushy or shrubby cover. Sticking with the math above, 10% shrubby cover per 40 acres equals 9,240 shrubs! My point is quail are extremely dependent on shrubby cover and you should always plant more than the minimum recommendations.

The Missouri Department of Conservation (MDC) has shrubs available for purchase at the following website from mid-November to April 30th - <http://mdc.mo.gov/forest/nursery/seedling/> You can also obtain an order form from your local MDC office. Shrubs are sold in bundles of 25 and they have several species to choose from.

The following shrubs have worked well for us in NW Missouri in order of preference – wild plum, blackberry, roughleaf dogwood, hazelnut, and false indigo bush. We have several native plum and dogwood thickets on our farm and I like blackberry because the deer and rabbits usually will leave them alone. I plant a few false indigo bush. They do extremely well, but I prefer the cover provided by plum and dogwood over false indigo bush. If you have native shrub areas on your property and they are doing well, chances are they will do well if you plant that species.

Before planting your shrubs, you should kill existing grass regardless of type. Removing this vegetation provides good growing conditions for your shrubs and promotes annual food plants for quail. Some of our early shrub CHQ's were planted directly into brome, fescue, and native grasses. These shrubs never grew and eventually died due to the grass competition. We now kill all vegetation prior to planting with an herbicide.

Once your shrubs arrive from the nursery, plant them as soon as possible. However, avoid planting them if the ground is frozen, excessively wet, or too dry. If planting immediately upon receiving your order is not an option, store them in a cool dry place and protect them from freezing. Keep them watered and plant as soon as conditions are good for planting. If seedlings must be stored for more than two weeks, "heel-in" seedlings in a trench located in a shaded, protected area.

When planting, make sure your seedling roots are always damp. Dip them in water or cover them with wet packing material. Keep them covered and in the shade, this is very important, especially on windy days. I plant all my shrubs with a dibble bar which can be borrowed from most MDC offices. Tree/shrub planters may also be available for use on larger plantings. My dad and I can plant well over 80 shrubs per hour using a dibble bar. We plant the seedlings at the same depth they grew at the nursery and pack the soil around the roots to close air pockets. To check for firmness, we gently pull each seedling up after planting. If the shrub pulls out easily, the soil was not firmly packed. Placing shrub protectors around planting stock will help deter deer and rabbit damage and will help mark your shrub plantings.

Your job isn't done once you have your CHQ plantings in the ground. During the first summer check for survival, weed pressure, and wildlife damage. The quicker you address any problems, the quicker your planting will be used by quail. Grasses will compete with your shrubs for moisture. It is extremely important to keep grasses out of your CHQ's for several years after planting. Treat cool-season grasses like fescue and brome before bud-break in March and after leaf drop in the fall. Treat warm-season grasses during the summer months when they are actively growing using a grass-only herbicide. When using herbicides, read and follow label directions. It may be necessary to re-treat any invasive grasses every 2-5 years within and adjacent to your CHQ's.

Did You Know???

Research conducted in Georgia at the Albany Area Quail Management Project with radio collared quail found that hunters only saw about half of the radio-tagged coveys in the area. What happened to the other coveys? Many coveys flushed wild before dogs pointed or hunters could see them. Some coveys never moved or simply ran away when approached by hunters or dogs. In some instances coveys were pointed by dogs, but over-zealous handlers, not immediately flushing the birds, called the dogs off, leaving behind another missed covey that held tight and never flushed! Researchers also noticed that these "stubborn" habits increased in frequency as the season progressed. In other words, the birds were quickly educated! So the next time you go quail hunting, especially late in the season, rethink that false point your four-legged hunting partner gave you or why you can't find birds were you found them earlier in the season.

Attention CRP Landowners – Check with your Farm Service Agency office about mid-contract management on CRP acres. Mid-contract management became a requirement with the 26th CRP sign-up in 2003. There should be thousands of CRP acres in Missouri managed every year by fire, disk, or chemical treatment. You must follow these specific dates for management –

For cool-season grasses: burn March 15 to April 30, disk July 16 to December 31, chemically suppress March 15 to April 30 or October 1 to December 1.

For warm-season grasses: burn July 16 to March 15, disk July 16 to December 31, chemically suppress July 16 to September 15.

If you choose to light disk or chemically treat your acres, treat no more than **1/3 of each CRP field** per year. You can prescribe burn up to **1/3 of your contract acres** per year.

Cost-share is available for all of the mid-contract management options. Additionally, legume and wildflower interseeding is an acceptable cost-share practice in conjunction with one of the mid-management practices. The interseeding should be done as soon as possible after the mid-management practice is completed.

Plan ahead and manage your CRP acres early in the above time frames. Burning your warm-season grass in the summer and early fall will stimulate wildflower growth and will set back thick stands of grass. If done early enough, the warm-season grass will have time to respond and grow back before the first frost, providing some winter cover. Early burns are most beneficial for quail. One note of caution, burning at this time can cause erosion problems if done on steep slopes. Disk or mow a fire line around any shrub plantings or downed tree structures you might have. The dates for all management practices are intended to help set-back the thick CRP grasses and promote the wildflowers and weedy annual plants that quail and other grassland birds depend on.

Private Land Care DVD now on the web –

The Missouri Department of Conservation's Private Land Care DVD is now available on YouTube. There are ten different management practices displayed from covey headquarter planting to edge feathering. Go to www.youtube.com and type in **private landcare series** in the search box. If you would like a copy of this DVD please send an e-mail to travis.dinsdale@mdc.mo.gov

Quail Focus Areas – Targeting private land habitat work

MDC is targeting habitat restoration on two fronts. Quail Emphasis Areas (QEAs) include 19 Conservation Areas where quail management is the focus. Quail Focus Areas (QFAs) are larger and primarily target private land. QFA's were selected in areas where landowners were already managing for quail, near conservation areas with good quail habitat, and/or where conservation partners have expressed an interest in quail management. Today, there are 34 QFAs located throughout the state. Many focus areas are around 30,000 acres in size, but some are even larger because of wide-spread landowner interest and success. Within focus areas, staffs have been working with landowners to improve quail habitat by providing technical and financial assistance. Landowners and conservation partners are also spreading the news about Quail Focus Areas and the benefits of habitat management. Success will come one farm at a time. Every little bit helps! Listed below are highlights of two Quail Focus Areas.

2C QUAIL FOCUS AREA

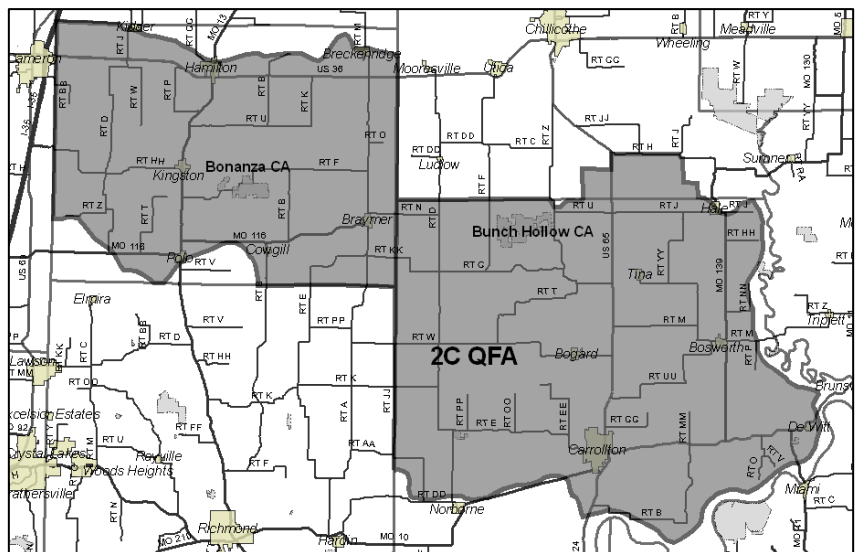
Region: Northwest **County:**
Caldwell, Carroll & Livingston
Size: 601,196 acres

Person to Contact for Carroll County:
Lee Metcalf, Private Land
Conservationist
(660) 542-3361, ext. 120

**Person to Contact for Caldwell
County:** Nate Mechlin, Private Land
Conservationist
(660) 663-3703, ext. 133

**Person to Contact for Livingston
County:**
Scott Roy, Private Land Conservationist
Phone: (660) 359-5685 ext. 114

Focus Area Facts: One of the largest focus areas in the state, the 2C Quail Focus Area was started in 2001. Since then, resource managers and landowners have improved quail habitat on approximately 340 farms and over 52,000 acres. Local FSA, NRCS,



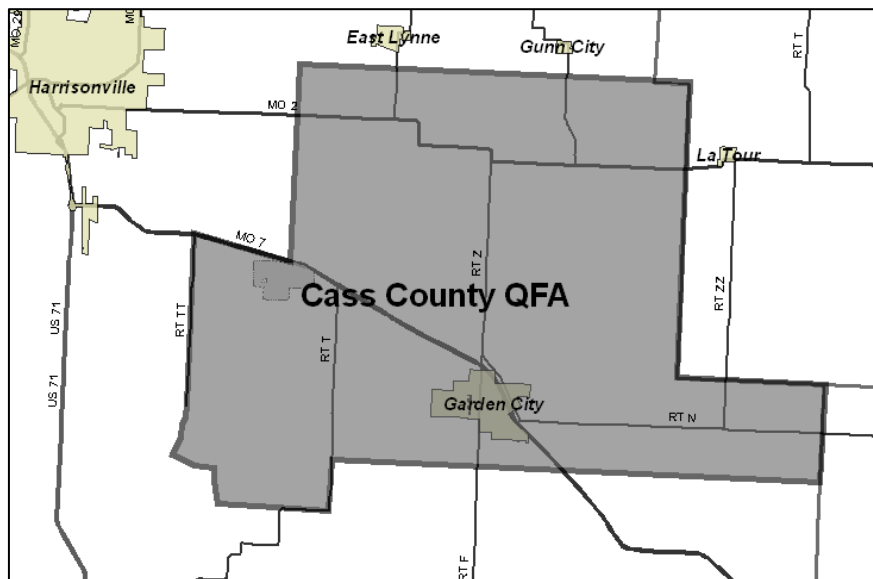
SWCD and MDC staff have serviced over 700 Continuous Conservation Reserve Program contracts benefiting quail on approximately 12,000 acres of improved habitat. Quail Unlimited, Quail Forever, Pheasants Forever and National Wild Turkey Federation play an active role by hosting fund raising banquets, providing cost share funds for habitat projects and organizing special youth events. In fact, the Grand River Chapter of Quail Unlimited started the first ever QU contracted prescribed burning team. Each year, Lee Metcalf is responsible for creating the “Your Key to Quail Habitat” management calendar. The calendar is available at most local MDC offices. The 2C Quail Focus Area also includes Bunch Hollow and Bonanza Conservation Areas. These Conservation Areas have been designated as Quail Emphasis Areas and are a good place to visit to see first hand what early successional habitat for quail and songbirds looks like.

CASS COUNTY QUAIL FOCUS AREA

Region: Kansas City **County:** Cass
Size: 51,934 acres

Person to Contact: Andy Carmack,
 Private Land Conservationist
 (816) 622-0900

Focus Area Facts: One of the first focus areas in the state, landowners and conservation partners in the Cass County QFA has received national recognition for their conservation efforts. In 2006, the Cass County QFA was featured during the 2006 QU National Convention in Kansas City. Resource professionals have promoted CRP, edge feathering (better known as “Chop and Drop” in Cass County) and many other practices that benefit quail. As a result, Cass County has one of the highest allocations of CP33 contracts and acres in Missouri and was recently recognized as only the second county in the nation to achieve its Northern Bobwhite Conservation Initiative habitat goals. Since 2002, landowners in Cass County have created over 15,000 acres of quail friendly habitat.



Quail Focus Areas – Fall Covey Monitoring

Beth Emmerich, Agricultural Wildlife Ecologist, Kirksville, MO

Many Quail Focus Areas (QFAs) have accomplished significant habitat improvement goals, with plenty more in planning stages. Landowners have told us many success stories about how they are seeing more birds since habitat improvement projects have been put in place. In order to determine if the focus areas are in fact having an effect on quail numbers, MDC proposed a pilot project to monitor fall coveys on two quail focus areas. We chose the Knox County Focus Area and the Sweet Springs Focus Area (located in Saline County) based on the habitat work already in place, and the willingness of the Private Land Conservationists and local landowners to cooperate with us in our monitoring efforts.

The Knox County Focus Area is approximately 11,400 acres and has about 600 acres of quail friendly habitat management practices in place so far. We sampled 20 points both inside and outside the Knox County Focus Area and found that the average number of coveys heard in October at each point was 3.4 inside the focus area and 2.5 coveys outside the focus area. That works out to 36% more coveys inside the focus area than outside the focus area.

The Sweet Springs Focus Area was recently expanded and is now approximately 39,122 acres. We used the original focus area (23,460 acres) to select sampling points. About 960 acres have had habitat management work done. We sampled 33 points inside and outside the Sweet Springs Focus Area and found the average

number of coveys inside the focus area was 1.8. Outside the focus area, we heard an average of 0.9 coveys per point. This was a 100% increase inside the focus area.

Although we only have one year of data, we can see birds seem to be responding to the increased habitat efforts within these two QFAs. The success of QFAs depends largely on the interest and motivations of the landowners in a given area. Landowners that have observed changes in habitat and seen more birds on their neighbor's property are often interested in learning how to create more favorable habitat on their own farms. Plans are to continue monitoring next year as QFAs gain more participation and additional habitat work is completed. Contact your nearest MDC office to find out if you live in or near a QFA, or for information on how to improve quail habitat on your property.

Hire a Contractor — Do you have forest, fish, or wildlife practices to install on your land? Visit <http://www.mdc.mo.gov/cgi-bin/mdcdevpub/apps/contactsnonmdc/main.cgi> and search for a conservation contractor to get the work done for you. Choose practices from tree/shrub planting to native warm-season grass establishment. Use this list to find someone to burn, disk, and spray your CRP acres.

Build it and they will come...

We all know true success in upland bird management lies in diversity; ranging from cover type to plant structure and plant composition to habitat arrangement. If we mix the proper ingredients we will have success. The same also applies to the means we use to reach the end or more specifically the programs to assist with habitat implementation.

There are a multitude of federal, state and non-governmental organization cost-share programs available to landowners. Jason Helton and Dr. Stan Humphrey are leading the charge in the **Poosey Quail Focus Area** (located in Livingston Co.) as model cooperators. Both are utilizing a variety of programs and resources to achieve habitat management goals on their farms.

Jason Helton has been working to improve quail habitat on his farm for the past three years. **MDC cost-share** has been a key component in helping Jason reach his goals. Several acres of native warm-season grass have replaced cool-season grass, the wooded draws have been edge feathered, prescribed fire has been used to encourage early successional vegetation and several acres of invasive serotia lespedeza are being treated. Some of Jason's success would not have been possible without assistance from the local **Short Grass Quail Forever Chapter**. Fellow members provided assistance helping with prescribed burning and edge feathering.

This spring Jason reported seeing a covey of about 30 bobwhites. He said it is likely the birds were still grouped from winter but given the ice, snow and sub-zero temperatures experienced last year it was very promising to see so many birds. Jason attributes the good survival rate to quality habitat.

Dr. Stan Humphrey, of Gallatin, recently purchased part of his father-in-law's farm in Livingston County. With the help of MDC and partnering agencies, Stan has "fast-tracked" his management goals. He began by completing one acre of edge feathering around all of the crop fields **using MDC cost-share**. When the **CRP SAFE** was announced no time was wasted in having a plan developed for enrollment into this bobwhite quail specific program that incorporates shrubby cover, food plots, nesting and brood rearing habitat.

Dr. Humphrey has also been working with the **Fish and Wildlife Service Partners Program** to convert 42 acres of cool season grass to native prairie. When a **Wildlife Habitat Incentives Program** sign-up was announced, once again Dr. Humphrey jumped at the opportunity to enroll his farm to do timber stand improvement. By utilizing a variety of programs and resources Stan is well on his way to having a "quail friendly farm" that will benefit a host of wildlife species.

Scott Roy, Private Land Conservationist, Trenton, MO

Check out <http://morequail.blogspot.com/> a new blog dedicated to quail

Edge Feathering Example

Edge feathering is an important quail management practice. Nearly every farm in the state has woodland edges, woody draws, and fencelines in need of edge feathering. To be effective, edge feathering should be completed next to early successional vegetation such as managed wildlife friendly grasses/legumes, field borders, food plots, or cropland. Many biologists across the state have seen immediate use of edge feathering by quail and many other species of wildlife. The following drawings show before and after edge feathering, to learn more about edge feathering visit <http://www.mo.nrcs.usda.gov/technical/forms/wildlife.html>

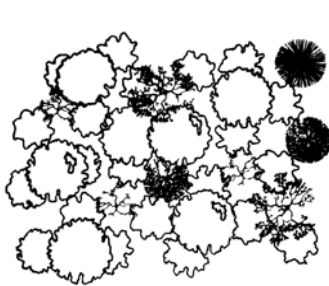


Figure 1 depicts an aerial view of a typical Missouri woodland edge before edge feathering.

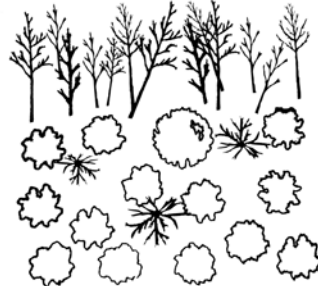


Figure 2 depicts an aerial view after edge feathering. Notice how the trees in the upper portion of the diagram have fallen out into the adjacent field. Another method not illustrated is dropping the trees parallel to the woodland so they do not stick out into the field.



Figure 3 depicts edge feathering from the ground. The edge feathering provides a transition zone between the woodland and the open field.

How to Deter Quail Predators

Are you among those who feel that predators are the main reason for the decline in quail? Whether fact or fiction, you can deter a predator's attention from quail by making it harder for the predators to find quail and their nests. A few simple quail management techniques should help. A Missouri CRP study found that many quail nests are depredated by snakes. Treating 1/3 of your CRP acres with a prescribed burn every year, with a goal of creating 30-70% bare ground, destroys the layer of grass thatch used by many of the rodents and snakes in CRP fields. Those hordes of mice attract all sorts of predators, including snakes and raptors, to your CRP fields, which may find an occasional quail or quail egg to munch on. Notice the rodent tunnels after burning an old CRP field with layers of thatch. You will not find these tunnels in a managed field with at least 30% bare ground.

If you look down your fencelines and ditches, there are probably trails under the trees used by rabbits, predators and other animals. You can deter predators from using these travel lanes by dropping the trees in the fenceline or ditch and leaving them lay where they fall. The tangle created by this habitat management technique puts a stop to the predator trail AND it creates more low cover for your quail. Some predators will still hunt this area, but you have slowed the conduit of predators into adjacent fields. The biggest avian predators of quail are probably great-horned owls and the occasional Cooper's hawk. They hunt from tree perches. By knocking down trees in fencelines and ditches, you can limit the amount of territory that these predators can hunt. Avoid building large brushpiles, these can harbor nest predators. Build downed tree structures instead. Use a

chainsaw when knocking down trees ----do not use a bulldozer. Preserve oaks and other valuable wildlife food and lumber trees.

Wanton killing of predators will not solve the depredation of quail. Remove a lot of coyotes and they are replaced by red fox, a more skilled nest predator. We kill off the bobcats and lose a predator of opossums and coons. Fewer redtailed hawks means more quail egg predators like snakes. Furbearer trapping needs to occur on a wide scale to impact the predator population. Trapping only your farm will have a temporary impact on predators. The best option is to manage the habitat to make it harder for the predators to find quail and their nests.

It Pays to Establish Quail Habitat!

Every year seed, fertilizer, and herbicide costs go up. Are your cropfield edges paying you back? Probably not. The large ear of corn was collected from the side of a field with a native warm-season grass crop buffer. The smaller one came from a side next to a wooded fenceline. Yields on the buffered side were estimated at 168 bushels per acre; those on the non-buffered side ran 45 bushels per acre.

CRP practice CP33 pays you to take marginal edges out of production – that's good for quail and **your** bottom line. CP33 provides cost-share money to establish native warm-season grass buffers. Compared to traditional field borders, CP33 can reduce corn borer infestation by 15 percent. Studies show CP33 can increase returns from \$30 to \$65 per buffer acre per year on most farms. CRP rental rates have increased with most soil rates well over \$100/acre. For details, visit your local Farm Service Agency office and ask about CP33.



Did You Know???

A 1957 Missouri study of coyote food habits found quail remains in only 1.4% of 770 coyote stomachs. Most recently, a Texas study found only 3% of 407 coyote stomachs had quail remains or eggs present. The vast majority of the stomach contents were rabbits and small mice and vegetation. Quail are not a significant food source of coyotes.

Mark Your Calendars

Prescribed Burn Workshops

March 14, 2009 - 9AM to noon at the Moberly USDA Service Center, demo burn to follow. Contact Ted Seiler 660-385-2616 ext. 118 to register

March 28, 2009 - 9AM to noon at the Macon USDA Service Center, demo burn to follow. Contact Ted Seiler 660-385-2616 ext. 118 to register

April 3, 2009 – 9AM to 3PM at the Davisdale Conservation Area Shop. Demonstration burn following lunch. If demo burn is not possible, then workshop will conclude by noon. Brown bag lunch provided for all registered participants. Register by April 1. Call Brent Vandeloecht, 660-886-7447 ext. 112, or Steven Noll, 660-248-3358 ext. 119. Directions to Davisdale Shop – From Hwy 40 take 240 North towards Fayette; at Hwy P/240 junction, turn south on to County Rd 453. Shop is 1 mile on the left. From Fayette, take 240 south to P/240 junction, turn right on to County Rd 453. Shop is 1 mile on the left.

Family Outdoor Fun Day

May 16, 2009 – 10AM to 3PM - 4th annual Family Outdoor Fun Day at the Macon County Fairgrounds. There will be a host of outdoor activities that people can learn about and participate in, including shotgun and archery shooting. Contact Ted Seiler 660-385-2616 ext. 118 for more information

Spring Covey Headquarters Calendar

March

Spray brome and fescue adjacent and underneath shrub thickets, edge feathering, and downed tree structures.
Drop honey locust and hedge trees in fencelines for quail covey headquarters. Don't forget to spray the stumps.
Burn your warm-season grass CRP fields by March 15th.
Disk grassland acres this month to promote broadleaf weeds.
Overseed legumes after light disking or prescribed burning.
Be ready when your shrub seedlings arrive. If planting into brome or fescue, spray with glyphosate.

April

DO NOT BURN native grasses this month if managing for quail, wait until fall.
Burn fescue and brome to severely stunt grass, then light disk or interseed legumes.
Till and fertilize food plots.
Order your covey headquarter shrubs from George O. White State Forestry Nursery by the end of the month.
Burn or chemically treat cool-season CRP by end of the month.

May

Listen for male whistle calls on clear calm mornings.
Conduct breeding bird counts.
Plant food plots this month for best results.
Nesting season begins for quail and most grassland birds – DO NOT MOW roadsides, old fields, and odd areas.
Clip weeds in newly planted native warm-season grasses to a height of 4-6 inches.

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 Extension



The Covey Headquarters Newsletter
3915 Oakland Ave
St. Joseph, MO 64506

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